

306. *Podiceps nigricollis* (Brehm).*Podiceps nigricollis* D. & O. p. 513.

A Grebe, seen on the pond at Chinwangtao, on the 16th of April, 1916, appeared to be the Eared Grebe.

307. *Podiceps cristatus* (L.).*Podiceps cristatus* D. & O. p. 514.

The Great Crested Grebe appeared in March and April, and in autumn is seen as late as the middle of November. I have seen this bird fishing in the harbour during the latter month, and shot one on a creek on the 17th of November, 1910.

III.—*On some Western Australian Birds collected between the North-West Cape and Albany (950 miles apart).*  
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(Text-figure 1.)

[Continued from Ibis, 1920, p. 719.]

*Hirundo neoxena carteri*.

Western Welcome Swallows were not commonly observed (except those at Dirk Hartog Island in May 1916, as already recorded in 'Ibis,' October 1917) until 1 April, 1919, when there were great numbers perched on the telegraph-wires near Busselton, and more of them in the town itself. A few were seen at Lake Muir on 17 March, and a good many on the telephone-wires between Augusta and Cape Leeuwin, 4 April, 1919, and also in the same position at Cape Naturaliste Lighthouse on 11 April.

*Cheramœca leucosternum marngli*.

Western Black-and-White Swallows are not commonly seen in the south-west, but are always fairly plentiful about Carnarvon, where colonies of them breed in the perpendicular banks of the Gascoyne River about September ;

here I saw many of them so engaged in that month in 1913 and 1916. Most of the nests seemed to contain young birds towards the end of September. On 19 August, 1916, several were seen at some sandy cliffs north of Maud's Landing, where they used to nest regularly in former years.

***Hylochelidon nigricans neglecta.***

Western Tree-Martins were constantly seen in all districts visited. When I was staying at the Point Cloates Light-house in 1916 there were a few days of exceedingly rough and cold weather in the first week in July, the temperature being down to 45° F. at sunrise. On several mornings, from three to six dead Tree-Martins were laid on the verandah. Fledged young birds were seen at Minilya on 9 September, 1916, being fed by the parents, and also at Broome Hill on 23 February, 1919.

***Lagenoplastes ariel conigravi.***

Western Fairy Martins are very local in distribution. The only place where any were seen was at the Minilya Station early in September 1916. About sixty nests had been built in the cart-shed, attached to the underside of the corrugated-iron roofing. All the young birds had left the nests on that date. I was told by Mr. McLeod that many nests were detached by the alternate expansion and contraction of the iron.

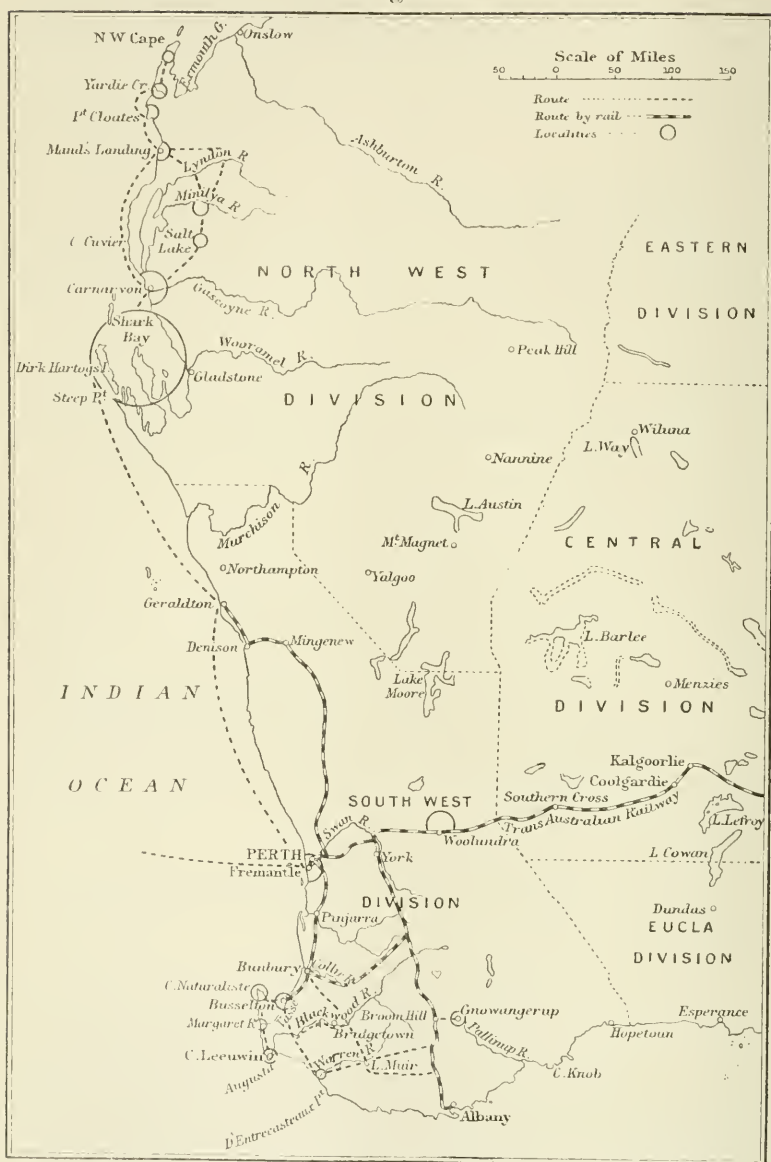
***Petroica multicolor campbelli.***

Western Scarlet-breasted Robins were frequently seen in all south-western districts.

***Whiteornis goodenovi ruficapillus.***

Western Red-capped Robins are usually only seen in the winter months (May to October) about Broome Hill, and I was surprised to see one there on 3 February, 1919. Several were seen about Woolundra (one hundred and fifty miles north of Broome Hill) on 23 May, and many others from Carnarvon to North-West Cape on different trips in

Text-figure 1.



Map of part of Western Australia to show Mr. Carter's localities and route.

the winter months, when they are usually fairly common there.

**Melanodryas cucullata westralensis.**

Western Hooded Robins were seen in the Broome Hill district, where they are fairly common, but do not seem to occur in the heavily timbered areas to the south-west. They were also noticed all along the North-West Cape ranges.

**Smicrornis brevirostris occidentalis.**

Westralian Tree-Tits were abundant about Broome Hill and Gnowangerup in February and March 1919, especially in the thickets of dwarf eucalyptus (Maa-lock, Mallet, etc.).

**Ethelornis tenebrosa christopheri.**

Allied Dusky Fly-eaters, first obtained by me in the mangroves at Carnarvon in September 1911 (*cf.* Mathews, Nov. Zool. xviii. 1912, p. 311), were numerous then, and also in September 1913 and June 1916; but between the 18th and 27th of September in the latter year I only saw one bird, which was a breeding male, and failed to discover any nests. This is a very unobtrusive little bird, and tame in disposition, going about in small parties, and often in company with *Zosterops lutea balstoni*. Only one was noticed in the large patch of mangroves near the North-West Cape, where I spent four days early in August 1916. None were seen in the mangroves of Peron peninsula, Shark Bay.

**Ethelornis fusca fusca.**

Western Fly-eaters were very plentiful in young eucalyptus trees at Lake Muir in March 1919, and were seen in lesser numbers in other south-west districts.

**Quoyornis georgianus.**

Only two White-breasted Shrike-Robins were seen in the course of the four visits to the south-west, viz., one near Cape Leeuwin in March 1916, and one at the Warren River

in March 1919. None were noticed in the vicinity of Cape Mentelle, where they were not uncommon when I was there in 1903, and the coastal scrubs were intact. This is a very seclusive, quiet species, feeding on the ground beneath thick scrub, especially near any small brook.

***Pachycephala pectoralis occidentalis.***

Western Thickheads were common about Broome Hill, and all south-western districts.

***Lewinornis rufiventris didimus.***

I did not see a single specimen of the Southern Rufous-breasted Thickhead on my 1919 trip, although they are usually common about Broome Hill.

***Gilbertornis inornata gilbertii.***

No Black-lored Thickheads were seen in February or March 1919 about Broome Hill, although they are usually fairly numerous there, their loud notes speedily attracting attention.

***Alisterornis lanioides carnarvoni.***

The type of the Carnarvon White-bellied Thickhead was obtained by me on 28 September, 1913 (see Mathews, 'Austral Avian Record,' vol. ii. p. 75). It was an immature male, apparently breeding, and my attention to it was attracted by the loud melodious thrush-like notes that it was uttering, as it fed under some dense mangroves. When I picked the bird up, my first impression was that I had secured a new Shrike-Thrush, to which species there is a striking resemblance in the plumage of female and immature birds, and also in the size of the beak.

On 30 September, 1913, I saw a similar bird, also below some mangroves, busily eating small crabs and other crustacea on the edge of the receding tide. This specimen was a female with enlarged ovaries. My next visit to these mangroves was early in June 1916, and on the 6th of that month I shot a male bird in full plumage, but dissection showed that it was not breeding then. I searched all the

mangroves round where I had obtained it, but saw no more of these birds, nor any nest, in the vicinity; but in other mangroves, about a mile distant, I saw several of them, on different dates, feeding on small crabs near the edge of the sea. One of these which I shot, for breeding data, was a female, and not breeding. I left Carnarvon on 17 June, hoping to find these birds breeding on my return, which was on 18 September, but between that date and the 27th, when I sailed again for Shark Bay, I failed to see any. I should say that their breeding season is from July to September.

A comparison of the skin of the full-plumaged male bird mentioned above, with others in the Perth Museum from localities north of the North-West Cape, showed sufficient differences to warrant subspecific distinction.

***Eopsaltria gularis gularis.***

Grey-breasted Shrike-Robins were observed all through the south-west areas, and were most plentiful in the vicinity of Gnowangerup and Broome Hill.

***Rhipidura flabellifera preissi.***

Western Fantails were common in the south-west districts.

***Leucocirca leucophrys leucophrys.***

Black-and-White Fantails were common in all south-western localities, except Augusta and the Margaret River, where none were observed. They were also seen from Shark Bay to Point Cloates, where they occur as winter visitors, but are not plentiful.

***Seisura inquieta westralensis.***

A few Western Restless Flycatchers were seen at Broome Hill in February 1919, and at the Vasse River.

***Pteropodocys maxima neglecta.***

Western Ground Cuckoo-Shrikes were seen at Broome Hill in February 1919, on two or three occasions. I shot

one out of a party of three, and one of the remaining birds showed the greatest concern at the fate of its companion, hovering close round it, until it was picked up.

This elegant bird is very local in its distribution, and does not occur in heavily-timbered districts. I have seen more of them about Broome Hill than in any other locality.

***Coracina novæ-hollandiæ westralensis.***

Western Black-faced Cuckoo-Shrikes were seen in most of the south- and mid-western districts, and were common about Broome Hill and Lake Muir early in 1916 and 1919. Eggs were noted in a nest at the Minilya River on 19 September, 1911, and recently fledged young at the Vasse River on 16 February, 1916.

***Lalage tricolor tricolor.***

White-shouldered Caterpillar-eaters were fairly common, and breeding, in the Gascoyne and Minilya districts in early September, 1913 and 1916.

***Drymodes brunneopygia pallida.***

Pale Scrub-Robins occur in the scrub country at Broome Hill, and also a long way east of it (Mathews, Reference List, 1913, only gives mid-west Australia as its range in that State). A male bird in full moult was obtained at Gnowangerup on 13 February, 1919, the only one seen in the course of my trips. It is a very shy species, and easily overlooked.

***Hylacola cauta whitlocki.***

The Western Ground-Wren is another shy bird that occurs to the east of Broome Hill, and is usually seen in thick scrub, growing on stony or rough ground. I was fortunate in seeing a good many of them in mid-February 1919, and obtained a few specimens; but they are difficult to shoot on account of the great speed at which they hop and move about under the bushes, with tails erect. They remind me, by their rapid elusive movements, of the *Diaphorillas* at Shark Bay.

***Pomatostomus temporalis rubeculus.***

Red-breasted Babblers did not seem to be breeding on the lower Minilya River on 19 August, 1911. Recently fledged young birds were seen there on 2 September, 1916.

The above locality is the only one where I have regularly seen these birds, which appear to be always present at the same place. They do not seem to occur on the Lower Gascoyne River, but are common on the upper parts.

***Morganornis superciliosus ashbyi.***

Western White-browed Babblers were commonly seen about Broome Hill, and the inland areas of the south-west, which are not so heavily timbered as the coastal parts. I had never seen any of these birds between the Vasse and Warren rivers until 31 March, 1919, when I came upon a small party near Warren House. A specimen obtained seemed to be a typical *M. s. ashbyi*.

***Morganornis superciliosus gwendolenæ.***

The Carnarvon Babbler is a good subspecies, being much smaller than the south-western form, *M. s. ashbyi*. These birds were, as usual, plentiful in the scrub around Carnarvon in 1911, 1913, and 1916. Fledged young birds were noted there on 19 September, 1911, and three eggs were found in a nest on 23 September, 1913. As compared with a series of eggs of *Morganornis s. ashbyi* from Broome Hill, the Carnarvon eggs are much shorter, having both ends very round and blunt, and are .84 of an inch in length, those from Broome Hill averaging .96. The Carnarvon eggs are heavily blotched all over with purplish brown, and the black hair-streaks, which are usually numerous on eggs of *M. s. ashbyi*, only appear on two of the Carnarvon eggs, and are limited to one long streak on the large end of each.

***Calamanthus fuliginosus carteri.***

Western Striated Field-Wrens were seen in mid-February 1919, on scrubby sand-plains about thirty miles south-east of Broome Hill, and, as usual, were very wary. When staying at Woolundra, about one hundred and fifty miles north of

Broome Hill, in May 1919, I saw and heard a *Calamanthus* on sand-plain country, but failed to obtain a specimen, having no gun at the time. It would be interesting to identify the birds occurring there.

***Calamanthus campestris rubiginosus.***

Rusty-red Field-Wrens were seen at Maud's Landing, and specimens obtained during the last week of August 1911; also at Mand's Landing and Point Cloates at the same time in 1913, and in early July in 1916, when a breeding male was obtained on 7 July at Point Cloates. These birds breed immediately after any heavy rainfall, irrespective of the season.

***Cincloramphus cruralis clelandi.***

Western Brown Song-Larks were common from Carnarvon northwards, on my visits in that district, from early June to October.

***Macleannania mathewsi mathewsi.***

The above note also applies to the Western Rufous Song-Lark, which species was particularly common about the sandy banks of the Gascoyne River. Recently fledged young were noted on 8 September, 1911.

***Epiphthianura albifrons westralensis.***

Westralian White-fronted Chats were common in south-western localities, except in 1919, when very few were seen, the only instances being at Lake Muir, when a small party was seen on 21 March, and considerable numbers on a bare sand-drift at Cape Naturaliste on 13 April, but they were unusually wild, and no specimens were obtained at either place.

***Parepiphthianura tricolor assimilis.***

Westralian Tricoloured Chats were common from Carnarvon to Point Cloates in 1913 and 1916. On 24 August, 1913, a male bird was flushed from a nest containing two incubated eggs. Two nests, each containing four incubated eggs, were found on the 11th and 16th of September at

Point Cloates and Carnarvon, respectively. Other nests examined between 24 August and 16 September contained young birds.

***Aurephthianura aurifrons flavescens.***

Western Orange-fronted Chats were scarce about Carnarvon and farther north in 1911, but not uncommon on salt-marshes and samphire-flats in August and September, 1913 and 1916. Recently fledged young were seen on Maud's Landing salt-marsh on 21 August, 1916.

***Conopoderas australis gouldi.***

Long-billed Reed-Warblers were not so plentiful in January 1916 and March 1919 at the large freshwater swamps adjoining Lake Muir as I had found them on previous visits; but when leaving there on 22 March, 1919, Mr. Higham and myself found a small reedy swamp, near the south end of the Lake, where Reed-Warblers and Grass-birds abounded, and we obtained specimens of both.

***Poodytes gramineus thomasi.***

Dark Grass-birds were common on the edges of the freshwater swamps at Lake Muir in December 1911, but scarce when I was there in January 1916. On my next visit, in March 1919, they were fairly common, and abundant at the swamp mentioned above. A female shot there on 22 March appeared to have been recently breeding. One of these birds, obtained at Augusta on 7 April, had the underparts tawny yellow, where it is whitish on the series of skins I have obtained at Lake Muir and Albany.

***Eremiornis carteri carteri.***

When at the Yardie Creek, from 26 August to 5 September, 1913, I failed to see any Desert-birds, and had the same bad luck when there again for six days in mid-July, 1916; so I left there on 25 July, and drove slowly north, carefully searching any patches of large Buck Spinifex (*Triodia*) on my way, but without any result until the 29th, when I was camped with two aborigines who had joined me,

at a rock-hole of very bad water at the foot of the ranges. We had been systematically hunting through, and beating masses of spinifex, often breast high, that grew round our camp, for four days, when I heard the familiar "chat-chat" of a Desert-bird, which I had not heard for thirteen years. After twice flushing the bird, I shot it, and not being able to find where it had fallen, called up one of the natives to help me, and he very nearly spoilt the specimen by treading on it, as it lay on a flat piece of rock between two masses of spinifex, missing it by a bare inch. It was a male bird, and undoubtedly breeding at the time. We spent two more days there, but failed to see or hear any more of them, so moved on towards the North-West Cape, as so much time was lost in climbing the ranges to obtain drinking-water there, as described in the itinerary of this paper. No traces of Desert-birds having been seen farther north, I camped at the same place on my return journey on 11 August, with the same native. Soon after our arrival, we flushed one of these birds from a large bunch of spinifex, and I thought it looked smaller than usual. I did not shoot, as I wanted to see whether the bird had a nest ; so three times, at intervals of half an hour or more, I cautiously visited and tapped the bunch, but without any results : so we got the small axe out of the buggy, and by the aid of it and a strong sheath-knife, cut and pulled that bunch to pieces without finding any trace of a nest or seeing the bird. Another careful search all round, the next day, yielded no results, so I thought that the bird seen was probably one of a recently fledged brood, and as my time-limit for returning the hired buggy to Maud's Landing had nearly expired, I drove south again, alone, having sent the native back to the Cape.

As I was driving along, late in the same afternoon, I saw a Desert-bird in some big spinifex, so tied up my horses and had a fruitless search in the vicinity, but could not camp there as my horses wanted water, the nearest being several miles farther south, where it had to be dug out with a conch-shell from a depth of about six feet of loose drifting beach-sand. However, I got them watered there before

dark, and camped. Next morning I had my breakfast before daylight, and getting in the horses, by 7 A.M. drove back to where I had seen the bird the previous afternoon, and spent nearly all day there, beating through and through the spinifex, with intervals of watching. One of the birds was twice flushed in different places (or it might have been the same one), but although I carefully pulled all the spinifex to pieces near where I had seen them, no nest was discovered. I did not shoot at the birds, as I hoped to find a nest through their movements. The only result after all my work, was to discover that the right hammer of my .410 gun had been hopelessly lost through the screw working loose and falling off when I was tapping the spinifex bunches with the barrel, which was not a good thing to do.

When I reached Minilya Station I made a new hammer from a piece of quarter-inch flat iron, cut to shape, that acted quite well for the rest of the trip, and I have it yet. I shall always think that my enforced stay of three weeks at Point Cloates lighthouse was the cause of my not being the first to discover the nest and eggs of *Eremiornis*, but Mr. Whitlock well earned that distinction by his untiring efforts.

***Acanthiza pusilla apicalis.***

Broad-tailed Tits were common in all south-western districts, and especially so in the vicinity of Broome Hill and Lake Muir.

***Acanthiza inornata mastersi.***

South-western Plain-coloured Tits were common in the south-western area, and especially in the more heavily timbered districts, as Lake Muir, Warren River, Collie, and Blackwood. They do not seem to occur about Broome Hill.

***Acanthiza inornata carnarvoni.***

The type of the Carnarvon Tit (Mathews, 'Austral Avian Record,' vol.ii. 1913, p. 76) was obtained by me on 13 August,

1913, in low Melaleuca scrub near Carnarvon, and is, I believe, the only specimen to date. It was one of a small party of these birds, and when shot, it fluttered out of sight, and while finding it, the rest of the birds vanished in the bushes, and I could not see them again. Although on many occasions on that trip, and subsequent ones, I often traversed the same ground, not a single *Acanthiza* of any sort was seen between Shark Bay and the North-West Cape during my trip in 1916.

***Pyrrololæmus brunneus pallescens.***

Pallid Redthroats were common in the scrub around Carnarvon, and north of there. Recently fledged young were noted on 26 August, 1911. These birds make a peculiar fluttering noise with their wings when flying.

***Sericornis maculatus warreni.***

Scrub-Wrens were common in the coastal scrubs at the mouths of the Warren and Blackwood rivers, also at Collie and Cape Naturaliste, in March and April, 1919. Only one of these birds was seen by me at the Vasse River; this was on 21 March, 1916.

***Malurus splendens splendens.***

Banded Wrens were very scarce about Lake Muir in January 1916, only one being seen there, but they were plentiful at the Vasse River in February that year, many being seen in full plumage. Very few were seen anywhere in March and April, 1919, excepting about Augusta. No full-plumaged males were observed in 1919.

***Hallornis leuconotus exsul.***

Recently fledged young of the Western White-winged Wren were seen at Carnarvon on 28 August, 1911. These birds were scarce in the mid-west in 1911 and 1913, but very common in 1916, when good rains fell from Carnarvon northwards. They were breeding at Maud's Landing on 23 June, and at Point Cloates and farther north in July. On 27 August, 1916, I found a nest with one addled egg

near the Lyndon River; a female bird was sitting on the egg. I concluded that the other young birds had been safely hatched out, and gone away with another female. The nest was about a foot from the ground, made of fine grasses and partly domed, and looked as if it had seen a lot of wear.

*Leggeornis lamberti occidentalis.*

Western Blue-breasted Wrens were not plentiful about Carnarvon in 1911 and 1913, but very numerous from there to the North-West Cape, from early June to September in 1916. A party of fledged young, with the parent birds, were seen feeding upon insects in heaps of dry seaweed on the beach at Carnarvon on 25 September. These birds are constantly seen feeding in dense mangroves, where insect life is abundant. I shot a full-plumaged male in mangroves one day, and saw it fall, evidently dead, a few yards from me. When I reached the place, the bird had disappeared. The same thing happened again, and I began to look into some of the numerous holes of the crabs that were plentiful under the mangroves, thinking the Wren might have fallen into one of them, and saw a crab backing down its burrow and dragging the bird after it. I at once thrust my hand in, but it was too large for the cavity, and though I eventually forced the full length of my hand and arm down, the crab got away with its booty. On another occasion I shot a *Zosterops balstoni* in mangroves, and keeping my eye fixed on it as it lay dead, I saw it suddenly disappear by being seized by a crab from below.

As previously stated in this paper, I once saw a Whistling Eagle pick up a Stilt before me, as it floated dead on a pool of water; and another time a Tree-Creeper (*Climacteris*) that fell into some scrub was snapped up by a lurking Monitor (large lizard), which disputed (unsuccessfully) my right to the bird; and I have seen dead ducks pulled below the surface of the water in lakes by freshwater turtles, before the birds could be retrieved—but this “crab-snatching” was quite a new thing.

***Leggeornis elegans.***

Only one party of Red-winged Wrens was seen in the south-west, viz. at Augusta, on 6 April, 1919, with one full-plumaged male. None were observed on the Warren River, where in 1910 I saw a good many. Mr. Higham obtained some specimens in May 1919 at Gingin, about thirty miles north of Perth.

***Leggeornis pulcherrimus stirlingi.***

Although a good look-out was kept for South-western Blue-breasted Wrens, only one party of five was seen, in sand-plain scrub, thirty miles east of Broome Hill. They were in full moult.

***Stipiturus malachurus westernensis.***

Westralian Emu-Wrens were common about Augusta and Cape Leeuwin, 1916-19.

***Stipiturus melachurus media.***

The type-specimen of this Emu-Wren was obtained by me a few miles east of Gnowangerup (thirty miles south-east of Broome Hill) on 12 February, 1919 (*vide* Mathews, Bull. B. O. C. xl. 1919, p. 45). Several small parties of these birds, from three to six in number, were seen in scrubby sand-plain country, which is practically always dry, and devoid of any surface water. In general plumage this subspecies is lighter in colour than *Stipiturus m. westernensis*, and distinctly smaller in size. It comes midway between that bird and *S. m. hartogi*, and is a good subspecies. The habits of all three are similar. On 26 July, 1908, I shot a similar bird on a sand plain a few miles east of Broome Hill, but never saw any other there.

Although the Stirling Ranges are only about twenty miles distant to the south of where the type was secured, Whitlock does not record having seen any Emu-Wrens there in his 1911 expedition (see 'Emu,' vol. xi.), and Milligan in his account of his trip there in 1902 ('Emu,' vol. iii.) only records having seen one bird, that was not secured.

***Sphenura brachyptera longirostris.***

No signs of Long-billed Bristle-birds were seen or heard in any of the coastal scrubs that were visited in the south-west area, although I spent several days at the place where the last known birds were seen some years ago; but the localities where these birds may still be living extend along such a great stretch of the coast, and are so densely clothed in scrub, that it is very easy to miss seeing such a very shy and seclusive species.

***Artamus leucorhynchus leucopygialis.***

The first time White-rumped Wood-Swallows were ever seen by me was at Carnarvon on 24 September, 1911, when a small party was flying about Babbage Island, but were very wild. Many of these birds were seen at exactly the same place and same day of month in 1913, and some specimens obtained. No examples were seen in 1916.

***Campbellornis personatus.***

Masked Wood-Swallows were numerous about Broome Hill in early January 1916. These birds are very erratic in their visits.

***Austrartamus cinereus tregellasi.***

Black-vented Wood-Swallows were seen in the Gascoyne and Minilya districts on all three trips, but were most plentiful in 1916, when many nests containing eggs or young were seen in September. A nest with three eggs was seen at the Minilya on 9 September, 1911.

***Angroyan cyanopterus.***

Wood-Swallows were common in the south-west districts.

***Micrartamus minor derbyi.***

Little Wood-Swallows were only seen in Shark Bay, and in some of the deep gorges in the North-West Cape ranges, where they breed in holes of the cliffs. When at the Yardie Creek on 26 August, 1913, I saw the parent birds feeding their young in a nest that was out of sight in a crevice of the roof of a large cave.

***Colluricincla rufiventris rufiventris.***

Buff-bellied Shrike-Thrushes were common about Broome Hill and south-west localities. In the Gascoyne and Point Cloates districts these birds are mostly found in stony ranges, and are common in all the gorges of the North-West Cape ranges, where their song is quite different from that of the southern birds. On 7 August, 1916, I found a nest, four feet from the ground, in the fork of a small white-gum tree, in a gorge near the North-West Cape; it contained two young birds about half-grown, and the male bird was sitting on them.

***Grallina cyanoleuca cyanoleuca.***

Magpie-Larks were more numerous about Broome Hill than any other locality. They do not occur much in heavily timbered districts. When at Lake Muir in March 1919, Mr. Muir asked me the name of a pair of these birds, which were feeding near his homestead, as he said he had never seen them before during his long residence there, and that the birds had only recently arrived.

***Gymnorhina hypoleuca dorsalis.***

Western White-backed Magpies were noted in all districts between Woolundra and Broome Hill, at which latter place they are very abundant, but I think they are even more plentiful about the Vasse River. They do not occur in the heavily timbered south-western localities, but are gradually working their way along there as the country is cleared and opened out. None were seen at the Margaret River or Augusta, and only odd birds at the Collie. On 16 January, 1916, I saw fledged young being still fed by the parent birds at Broome Hill; and on 24 February, 1917, I saw a tame bird of the previous year that was completely white in plumage, with pale fleshy bill and legs. The irides were blue, with a slight tinge of pink. It would be about five months old. When at the Vasse River on 27 February, 1916, I saw these Magpies eating many figs off the trees at a homestead, and also digging up with their beaks, and eating, freshly planted grains of maize.

***Cracticus nigrogularis kalgoorli.***

Western Black-throated Butcher-birds were breeding on the Lyndon River on 5 September, 1911. They were rather common in May 1919 about Woolundra, which is probably near their southern limit of range.

***Bulestes torquatus leucopterus.***

White-winged Butcher-birds were common about Broome Hill and south-western localities, excepting Augusta and the Margaret River, where none were seen. Several of them were observed at Woolundra, where the Black-throated birds give them a bad time, by constantly attacking them. A specimen of the White-winged was obtained by me on 13 September, 1916, about midway between the Gascoyne and Minilya rivers, the first time this bird was ever seen by me in that district. Shortridge does not mention having seen this subspecies about the Gascoyne River in 1908 (*Ibis*, 1909, p. 669).

***Falcunculus frontatus leucogaster.***

White-bellied Shrike-Tits were commonly seen about Broome Hill, especially early in 1919. Adult birds were seen feeding recently fledged young on 4 March, 1919.

***Oreoica gutturalis westralensis.***

Western Crested Bell-birds were exceedingly scarce about Broome Hill in early 1919, where they are usually plentiful at all seasons. They were, as usual, fairly common in the Gascoyne and Minilya districts in 1911, 1913, and 1916.

***Aphelocephala castaneiventris minilya.***

Several small parties of Murchison Whitefaces were seen in mid-September, 1916, in scrubby country midway between the Lower Gascoyne and Minilya rivers, where I had never previously seen any of these birds; but I had obtained specimens in 1904 at Mullewa, three hundred miles to the south. Shortridge found them "fairly numerous as far north as the Upper Gascoyne River (Clifton Downs Station)" in 1908 (*Ibis*, 1909, p. 667); so, at present, the locality where my

specimens were obtained is the most northerly record, being sixty miles farther north, and about one hundred nearer to the coast (westwards) than Clifton Downs. The birds were tame, feeding on the ground below short scrub, into which they took shelter when disturbed.

This bird was first described by Mr. G. M. Mathews (Bulletin B. O. C. vol. xl. 1920, p. 75).

Since writing the above, I have been able, through the courtesy of Dr. P. R. Lowe, to compare the specimens obtained by me with those obtained by Mr. Shortridge, now in the Balston collection at the British Museum (Natural History), and find that the Minilya birds are more rufous on the mantle than any of the others, which were mostly obtained in localities to the south-east—as Laverton, 600 miles south-east from the Minilya, and Day Dawn, about 300 miles to the south-east and midway between the Minilya and Laverton. The specimens from Day Dawn are almost white on the whole of the underparts, and can be separated easily from any of the others. Those obtained on the Minilya can hardly be distinguished from the Clifton Downs birds, which they most resemble.

#### ***Sphenostoma cristatum occidentale.***

Westralian Wedgebills were, as usual, abundant in the Lower Gascoyne and Minilya scrubs, particularly about the banks of the rivers. I proved that both sexes utter the wonderful metallic ringing notes.

#### ***Neositta pileata broomi.***

South-west Black-capped Tree-runners were seen in small parties in several south-western localities, including the Margaret, Blackwood, and Warren rivers, and Lake Muir. They were most plentiful about Broome Hill.

#### ***Whitlocka melanura wellsii.***

The Allied Black-tailed Tree-Creeper (Ogilvie-Grant Ibis, 1909, p. 664) was first obtained by Shortridge on the Upper Gascoyne River, apparently about 1908. I had never

seen a single Tree-Creeper during my long residence in the Gascoyne (Lower) and North-West Cape districts ; but in 1900 I found a deserted egg, that was new to me, in a nest soaked with rain-water in a cavity of a small tree, about sixty miles inland from Point Cloates. I forwarded the egg to Mr. A. J. Campbell at Melbourne, for identification, and he replied that it was undoubtedly the egg of some species of *Climacteris*, and he published a description of it in the 'Emu,' vol. x. p. 299.

The first time I was in the Gascoyne district again, after Mr. Ogilvie-Grant's 1909 'Ibis' paper was published, was in August 1911, and I kept a good look out for *W. m. wellsi*, but saw none on the lower part of the river. However, when travelling south by mail-coach from the Minilya river, on 12 September, I caught a glimpse of what I felt sure were Tree-Creepers in some Jam (Acacia) timber through which we passed, but of course could not follow them. Almost exactly the same thing happened on 18 August, 1913, in the same patch of Jam trees ; but when there next time, on 13 September, 1915. I was able to accept the kind hospitality of my old friend Mr. Harry Campbell, and stay a few days at his station homestead, in the vicinity of which I had seen the birds. Mr. Campbell drove me out a few miles that day, but we had no luck with Tree-Creepers ; but on the 14th I had a long walk round and obtained three specimens of the bird, and found a nest with two young birds almost full grown.

The "Jam" trees grow to a height of about twenty-five feet, with trunks from a foot to twenty inches in diameter, and derive their local name from the sweet scent of the timber, which always reminded me of violets. I was scanning the scattered trees as I walked along through them, and saw ahead of me something rapidly moving in and out from a hole, about eight feet from the ground, in one of them. At first I thought this object was the head of one of the large lizards, or monitors, that are great robbers of eggs and young birds, but getting nearer, saw

that it was the head of a bird, so I shot at it with my .410 gun, and it disappeared in the hole. Upon climbing the tree I found that it was hollow nearly down to the ground, and, thrusting my arm in, could feel a bird fluttering upwards into the upper part of the trunk, which was also hollow. I then withdrew my arm, plugged the hole with my cap, and from the ground carefully examined the lower part of the tree, and through a crevice was fortunate enough to catch sight of the extended wing of a bird, with a buff band across it, so knew I had got a Tree-Creeper at last. I then cut away the extremely hard wood from the edges of the crevice with my knife, until it was large enough to enable me to extract the dead bird, which was an undoubted fledgling of *W. m. wellsi*. I then plugged this hole, and also the larger one above, with bunches of dry grass, and withdrew some little distance to await the return of the parent birds, both of which I obtained in about five minutes; they were just commencing to moult. I then walked back to the station to obtain a small axe, and returning with it to the tree in the afternoon, cut the latter open, but could not find the other young bird.

On the following day I saw another pair of the birds, and by watching them, located another nest, about twelve feet from the ground, in a crevice formed by a split in the main fork of a large, dead Jam tree. The nest was simply a large handful of sheeps' wool, laid on chips of wood, about eighteen inches from the top of the crevice. It contained two young birds, about half-grown. No wool was seen in the first tree that I cut open the previous day. I saw several other adult birds in the next two days of my visit, but found no more nests, and was apparently too late for any eggs, but have no doubt myself that the egg obtained in 1900 was the egg of this new subspecies, which is the only Tree-Creeper found in that area. In habits these birds much resemble *W. r. rufa*, often feeding on the ground, on fallen trunks and branches of trees laid on the ground, as well as on the trunks of standing trees.

**Whitlocka rufa rufa.**

Rufous Tree-Creepers were common about Broome Hill, and also seen at Woolundra.

**Whitlocka rufa obscura.**

Allied Rufous Tree-Creepers were observed, and specimens obtained, at Lake Muir, the Warren, Blackwood, Margaret, and Collie rivers. They were all of this darker subspecies, and confirm its validity. The darkest coloured birds were obtained on Big Brook, a tributary of the Warren River from the east.

**Zosterops gouldi.**

Green-backed White-eyes were common through all the districts visited. Small young were seen in a nest at Carnarvon on 4 August, 1911. These birds were feeding freely on small orange-coloured berries from bushes near the beach at Vasse in February 1916.

**Zosterops lutea balstoni.**

Carnarvon White-eyes were common in the mangroves near Carnarvon in all my trips, and some specimens shot there on 17 September, 1911, were evidently breeding, but I failed to find any nests. A few of these birds were seen in mangroves near the North-West Cape on 2 August, 1916. None were seen in the mangroves of the Peron Peninsula, in Shark Bay, that year.

**Austrodicæum hirundinaceum tormenti.**

Western Mistletoe-birds were only seen on two occasions, viz., a pair on the ranges near Point Cloates on 14 July, 1916, and those already recorded (Ibis, 1917, p. 608) on Dirk Hartog Island. Mathews (Ref. List, 1913) only gives North-west Australia and Northern Territory as the range of this bird. Milligan recorded it from the Wongan Hills (100 miles north-east from Perth), and Shortridge from near Kalgoorlie, and I have seen them at several places along the Midland Railway route.

***Pardalotus punctatus whitlocki.***

Western Red-rumped Pardalotes were common in the Karri forests of the south-west, but not always easy to see, and still less to shoot, when they are high up in the giant trees that average two hundred feet in height, and in the Warren River district often reach three hundred feet.

***Pardalotus rubricatus pallidus.***

Pale Red-browed Pardalotes were, as usual, fairly plentiful about the beds of the Gascoyne and Minilya rivers, and occasionally seen far out from water-courses. On 10 September, 1916, I shot a female at the Minilya River that contained a fully-formed white egg. On 18 September I noted that a pair of these birds were feeding their young, which were being reared inside a perpendicular iron pipe about two inches in diameter and seven feet in height; this was set upright in the ground just outside a large shearing shed, where shearing was in full progress. The nest was apparently some distance down the pipe.

***Pardalotus striatus westraliensis.***

Western Pardalotes were common about Broome Hill and all south-western districts. On 1 September, 1916, I shot a pair at the Minilya River, where I had never previously seen any of these birds, nor were they met with at the Gascoyne.

***Melithreptus lunatus chloropsis.***

Western White-naped Honeyeaters were observed all through the south-west area, where they are one of the commonest birds.

***Melithreptus atricapillus leucogenys.***

A few Western Brown-headed Honeyeaters were seen about Broome Hill and Gnowangerup in February 1916, and specimens obtained.

***Cissomela nigra westralensis.***

Western Black Honeyeaters were only seen on one occasion, viz. on 21 June, 1916, when I shot one out of a pair at Maud's Landing. They were very wild and restless.

***Acanthorhynchus superciliosus wilsoni*.**

White-browed Spinebills were common in the south-west, especially about Lake Muir.

***Gliciphila melanops westernensis*.**

Western Tawny-crowned Honeyeaters were common about Broome Hill, Gnowangerup, and some of the coastal scrubs in the south-west. They frequent open country more than heavily timbered places.

***Pumella albifrons albifrons*.**

White-fronted Honeyeaters, like the above birds, are found in open scrubby country, and are erratic in their movements. They used to be fairly common about the Gascoyne and Point Cloates after heavy rains, but I never saw any in the south-west. They were only noticed on two occasions on my trips to the north, viz., on 14 July, 1916, when some were seen on the ranges near Point Cloates, and on 23 September, 1916, when there were a few near Carnarvon and I obtained specimens. It is a very restless and shy species.

***Certhionyx variegatus*.**

Pied Honeyeaters were seldom seen in the Gascoyne and Minilya districts in 1911 and 1913, but were abundant in 1916, which was a good (wet) season. On 21 August, 1916, I found a nest containing three fresh eggs at Maud's Landing. It was about two feet from the ground in a small bush, and made of small twigs, roots, and grass, and lined with some soft bark or fibre. Several nests containing young birds of various sizes were seen in the few days following this date, when travelling by camel-waggon through the scrubby coast-hills between Maud's Landing and Cape Farquhar.

***Stigmatops indistincta indistincta*.**

Least Honeyeaters were seen in most localities, but not in any numbers, from the south-west to the North-West Cape, where this species is fairly common in the scrubby gorges of the ranges.

***Meliphaga virescens virescens.***

Singing Honeyeaters were commonly observed in all the districts visited. Fledged young were seen at Carnarvon on 11 August, 1913, and Point Cloates on 14 July, 1916. Mr. G. M. Mathews appears to have inadvertently described *Meliphaga virescens hartogi* as a new subspecies (*vide* Bulletin B. O. C. vol. xl. 1920, p. 76). The type of the species itself was obtained on Dirk Hartog Island by the French expedition of 1818, as mentioned in 'The Ibis' (1917, p. 609), and was described by Vieillot (N. Dict. d'Hist. Nat. xiv. p. 329).

***Lichenostomus cratitia occidentalis.***

Wattle-cheeked Honeyeaters were very plentiful in the sand-plain scrubs east of Gnowangerup in February 1919, the only locality where any were observed.

***Lichenostomus keartlandi mungi.***

Western Grey-headed Honeyeaters were plentiful all along the ranges of the North-West Cape peninsula, but were not seen elsewhere. They were breeding from July to August, 1916. The song of this bird is a very sweet trilling warble, and other shorter notes are uttered.

***Lichenostomus ornatus ornatus.***

Western Yellow-plumed Honeyeaters were common at Lake Craigie (fifteen miles north of Perth), where specimens were obtained on 8 April, 1916.

***Lichenostomus ornatus wensleydalei.***

Inland Yellow-plumed Honeyeaters were very plentiful about Broome Hill, where they mostly fed in the white-gum timber. Many recently fledged young birds were seen in early February, 1916.

***Ptilotula penicillata carteri.***

North western White-plumed Honeyeaters were, as usual, abundant on the scrubby banks and islands of the Gascoyne River, the bushes and white-gum trees being full of the birds, with their cheerful notes and lively movements.

They were also common on the Minilya River and the Yardie Creek pools, but excepting near these pools in the North West Cape ranges, their place is taken by *Lichenostomus keartlandi*. Most of the young birds are fledged in August or early September. The notes of the birds from the Minilya northwards are different from those on the Gascoyne.

***Meliornis novæhollandiæ longirostris.***

Long-billed Honeyeaters were common in all south-western districts.

***Meliornis niger gouldi.***

Moustached Honeyeaters were only seen at Augusta, when several were feeding on the honey in *Banksia* blossoms, in company with many *M. longirostris*, and specimens were obtained on 8 April, 1919. These birds seem to be very local, and are always very restless and shy.

***Myzantha flavigula lutea.***

Yellow Minahs were common on the Lower Gascoyne River, and a few were seen on the Minilya and Lyndon rivers. Fledged young were noted on 9 September, 1911.

***Coleia carunculata woodwardi.***

Western Red Wattle-birds were common about Broome Hill and all south-western districts. In early April, 1919, thousands of them were feeding in the coastal scrub and timber near the Vasse River.

***Anthochaera chrysoptera lunulata.***

Little Wattle-birds were not commonly seen, except at the Vasse River, in April 1919, when many were feeding in company with *Coleia carunculata*.

***Acanthogenys rufogularis flavacanthus.***

Western Spiny-cheeked Honeyeaters were fairly common in the scrubs about Carnarvon, the Minilya district, and North-West Cape ranges, and a good many were seen at Woolundra in May 1919, eating the last of the grape-crop.

These birds were noticed breeding on the Lyndon River on 5 September, 1911, and at Carnarvon on 23 September, 1913. Both sexes utter the peculiar gurgling notes, and I observed that these birds north of Point Cloates have quite a different note and whistle from those of the Carnarvon district. Mr. G. M. Mathews described the Woolundra bird as *A. r. woolundra* (Bulletin B. O. C. xl. 1920, p. 76).

***Anthus australis bilbali.***

Western Pipits were common about Broome Hill, and in open or cleared localities through the south- and mid-west areas. They are not seen in heavy timber in its natural state, but extend their range as the country is cleared. Two small young were seen in a nest at Carnarvon on 13 August, 1911, and three fresh eggs in a nest there on 22 September, 1913. Specimens of *Anthus* obtained at Peron Peninsula and Dirk Hartog Island (both in Shark Bay) and at Carnarvon are slightly more rufous in general colouring than birds from Broome Hill. Point Cloates birds are distinctly more rufous than those at Carnarvon, and near the North-West Cape I obtained specimens that agree with Mathews' Rufous Pipit (*Anthus australis subrufus*), of which I found a nest containing three eggs, about twenty miles south of North-West Cape, on 29 July, 1916. They were very similar to those of more southern Pipits.

***Mirafrja horsfieldi woodwardi.***

Specimens of the Onslow Bush-Lark were obtained by me at the Minilya River on 20 August, 1911. It was the first time I had seen these birds so far south. Fledged young were seen at the same place on 20 September, 1911. Several were seen at Maud's Landing, Point Cloates, and near the North-West Cape.

***Zonæginthus oculus.***

Red-eared Finches were common in the Paper-Bark tree (*Melaleuca*) swamps about Albany in 1913, and I saw some at Lake Muir (which is thirty-five miles from the sea) on 1 January, 1916, and a good many at a large swamp close

to Cape Leeuwin in March 1916. Some of their nests of the previous year were examined in scrub between the swamp and the beach; they were made of fine grass and fibre, and partly domed. Boys from the lighthouse quarters said they found nests there every year. A few of these birds were seen, and specimens obtained, on 25 March, 1919, in dense scrub below Karri Forest on the Warren River.

***Tæniopygia castanotis wayensis.***

Chestnut-eared Finches were fairly common, for a short time, about 14 October, 1911, at Broome Hill and to the east of there. It was a very dry year. A specimen was obtained by me at Lake Muir on 1 January, 1916, which is the farthest south locality where I have seen this bird. They were, as usual, abundant from Carnarvon, northwards, on all visits there. Many nests contained eggs there on 7 September, 1911, and early September 1913 and 1916. Mr. G. M. Mathews described the Dirk Hartog specimens of this species, collected by me in 1916, as *Tæniopygia c. hartogi* subsp. nov. (*vide* Bulletin B. O. C. xl. 1920, p. 76).

***Emblema picta coongani.***

Painted Finches were seen in some numbers on parts of the North-West Cape ranges. On 27 July, 1916, I saw a flock of more than twenty in a deep gorge, and shortly afterwards, at a water-hole high up on the ranges, there were many of these birds engaged in drinking. Several specimens were obtained there on different days, but none of the birds were breeding. When I was at Carnarvon in 1913 a bird-fancier, who specialized in Finches and had a large aviary of them there, assured me that he had found occasional nests of *Emblema picta* in the vicinity.

***Chlamydera maculata nova.***

The first specimen of the Cape Spotted Bower-bird was obtained by me early in February 1892, and not 1902 as stated in the 'Emu,' vol. iii. p. 37, and as that record may not be familiar to the readers of 'The Ibis,' I repeat the

main facts. A distressing drought had been prevailing for two years, and I had been obliged to move all my stock, with much trouble and loss, from Point Cloates to the then virgin country on the west side of the Exmouth Gulf, only to have several hundred sheep poisoned by some unknown shrub, soon after reaching there. So I returned to the west side of the peninsula ranges with a native boy, in order to open out a "soak" or black-fellow's well, at which we had obtained enough water for our horses when driving the sheep up. The water was a few feet below the ground-surface in a dense patch of scrub, on rocky ground. The weather was intensely hot, and we found three putrid poisoned dingoes in the water-hole, so had to dig it out thoroughly before we could obtain any water to drink. It was not long before the boy smashed one of his big toes with a heavy sledge-hammer, so that he could not work, and I was picking and shovelling alone, in a very bad temper, when I heard some extraordinary chuckling noises in the scrub where the native was nursing his injured toe, so called out to him: "If you cannot work you need not make such idiotic noises"; when he replied, "That not me, that a bird." So I jumped out of the hole to see what it was, and shot it, with my only firearm at the time—a .450 Colt's revolver—as it was creeping about in the scrub. It seemed to me to tally with *Chlamydera guttata*, according to Gould's Handbook, which, as usual, I had with me, when camping out. The bird of course was badly smashed, but I sent what was left of its skin to the Melbourne Museum for identification; they informed me that only a mass of loose feathers had arrived. After I had finished making the well, where there was a splendid supply of good water, I moved most of my sheep back there; but although I was camped there for several weeks, in which time I was constantly tramping the surrounding ranges, in order to shoot kangaroo, emu, etc., for food, no more of the birds were seen; but when back at Point Cloates again in April the same year, I saw one of them in a deep rocky gorge among dense fig-trees, but did not shoot at it, hoping that

it might breed, but I saw no more of it, or any others, during the eleven years that I afterwards lived in that district.

After thirteen years' absence, I was again at the same part of the ranges where I had shot the first Bower-bird, and on 6 August, 1916, Mr. A. Campbell, who now resides there, and myself were searching some of the deep rugged gullies of the ranges, where clumps of thick scrub, and large wild fig-trees grow in patches, when a thick-set bird was seen perched in tall bushes ahead of us. I shot it, and found it to be one of the long lost Spotted Bower-birds. Then we noticed two nests, about twenty feet from the bottom of the gully, in a small tree ("Eel-bya"), and Campbell climbed up to examine them. Directly he reached them, another Bower-bird perched in the tree a few feet above his head, and I asked him to turn his face away so that I could shoot it, which I promptly did without doing him any damage. He called down to me that one nest was very old and dilapidated, and that the other one was empty; so I asked him to descend and let me climb up and examine them, while he stood below with the .410 gun. Just as I was near the nests, Mr. Campbell called out: "Another of them has just settled above *your* head, shall I shoot it?" ; and as my back was towards him, I replied, "Shoot away," and a third bird fell. As Campbell was picking it up, it uttered a harsh cry, and a fourth bird appeared in the bushes where we had seen the first, and that was also secured. The whole affair only lasted a few minutes, and we were both considerably excited. The only bird that uttered any sound was the third one, as mentioned above. Both the nests were similar in structure, being about ten inches in diameter, and made entirely of sticks, with small twigs for lining material. The nesting cavity was shallow in the better of the two, and nearly filled with birds' droppings and some fallen leaves. It had probably been used a few months previously, and I think undoubtedly, by a pair of these birds. When skinning the specimens later in the day, three were found to be females, and none of them showed any indications of breeding. They had been feeding on small round berries and leaves

off some bush. A careful search in the vicinity failed to find any bowers or playgrounds, and none were seen either in that gully, which we followed to its head, or any of the other numerous ones that were examined on that and following days.

On the 7th of August I walked out to the place where the birds had been obtained, and took photographs of it, and the tree with the two nests; but the prints obtained, and also the negatives, were lost with the bulk of my luggage on the s.s. 'Medina,' when she was torpedoed in the English Channel in April 1917. I then again searched all the likely gullies in the vicinity, but only saw one Bower-bird, that was shot when feeding in a clump of fig-trees. I was out again the next day, but tramped many miles on the rugged ranges without any results, except seeing a single Bower-bird fly from a clump of fig-trees some distance from me.

On the 9th of August Mr. Campbell drove me some miles in order to search fresh ground, and after examining several likely-looking places, the female bird that was figured (Ibis, 1920, pl. xiv.) was obtained. Two others were seen to fly from a large mass of fig-trees, near where we were having our lunch, and a single bird from other fig-trees, when returning in the afternoon. Apparently these birds feed largely on wild figs. Their flight is straight, with rapid strokes of the wings, and resembles that of Magpies (*Gymnorhina*); they look large when flying. Whitlock, in his paper "On the East Murchison," Emu, vol. ix. p. 218, says of *Chlamydera m. subguttata* that the nuchal band is much smaller in the female bird than in the male. This is certainly not always the case with *C. m. nova*. The nuchal bands of all the birds obtained by me are mostly of a vivid pink colour, but they all contain a few bluish-purple feathers scattered in with the pink ones. I also noticed that the markings which appear to be black on the edges of the tawny spots on the crown of the head, show a distinct green when held at a certain angle. The North-West Cape is about 480 miles north-west of the locality where Mr. Whitlock obtained his birds.

It is curious that my old natives at the North-West Cape told me that the Bower-birds were strange to them, and they had no aboriginal name for them; but a native who came from the Ashburton district told me that he had seen similar birds to the north of that river, and far inland. A white man to whom I showed the specimens, asking him if he had ever seen any like them, at once replied that he had seen the same or similar birds at a locality that corresponded with the one described by the native, viz. about 180 miles east of the Cape.

Through some mistake, the letterpress accompanying the plate of this fine new subspecies ('Ibis,' 1920, p. 499) is headed "On a new *species* of Bower-bird."

### ***Corvus coronoides perplexus.***

Southern Ravens were common in all south-western districts, and were seen near the mouth of the Warren River. Some were also seen at Broome Hill on 14 February, 1919, where Ravens seldom occur.

### ***Corvus bennetti bonhoti.***

Western Small-billed Crows were common about the Gascoyne and Minilya districts. A breeding female was shot at Carnarvon on 9 August, 1911. It had the bill and inside of mouth black; irides with a bright blue centre, and white around it. A male obtained at the Minilya River, 19 August, 1911, had the bill and mouth black; irides hazel.

### ***Corvus cecilæ cecilæ.***

Northern Crows were also common in the above districts, and I cannot say which bird is the most abundant, but probably *C. c. cecilæ*, and the following notes may be taken as applying to this species:—5-9 September, 1911. Many young, of large size, in nests at the Lyndon and Minilya rivers, and one nest containing eggs. 17 September, 1913. Many young birds in nests at Minilya. 22 July, 1916. Took seven eggs, incubated, and of a pale blue colour without markings, from a nest ten feet from the ground in a stunted tree at Yardie Creek. 9 July, 1916. Shot a male at Point

Cloates, apparently not breeding. 16 September, 1916. Shot a fledgling that had just left the nest, and could not fly much: the irides were bright pale blue.

A bird, shot at the Yardie Creek on 4 August, 1916, had been feeding largely on caterpillars and salt-bush berries. Crows were a nuisance at my lonely camp at the Yardie that year, turning all sorts of things over when I was away from it. I had shot two specimens of Rock Wallaby (*Petrogale lateralis*) for food, and pegged out the skins on the ground, but the Crows damaged them; so next time I left the camp I buried the skins, laid flat, some inches deep in the sand, but on my return found that the Crows had pulled them up. On 9 September, 1913, I shot one of a pair of Crows, for identification, at Carnarvon, and was carrying it by its feet, when the other bird followed me for about a mile, cawing and flying close round me. It was presumably a female, as the one shot was a male.

***Corvus cecilæ hartogi.***

My notes on the Dirk Hartog Crow were published in 'The Ibis,' October 1917, p. 610. It has since been described as *Corvus hartogi* in the Bulletin B. O. C. vol. xl. p. 76, 30 January, 1920.

***Neostrepera versicolor plumbea.***

Leaden Crow-Shrikes were common all through the south-western area. Their northern limit seems to be about the Murchison River.

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*Corrections.*

Referring to my paragraph in 'The Ibis,' July 1920, bottom of page 693, re *Chlidonias leucoptera*: as no specimens were obtained of this "White-winged Tern" I deleted it from the proof-sheets, which were received by me at a very late date, and apparently too late to make the required omission, which I regret.

On page 709 of the same paper, in the fourteenth line from the bottom, for "length" read "height."

**Daption capensis.**

Since I recorded the appearance of Cape Pigeons on the Western Australian coast, in the first part of this paper ('Ibis,' 1920, p. 693), a specimen of this bird has been obtained at Cottesloe, near Fremantle, in August this year (1920), and is now in the Perth (W. Australia) Museum, together with other rare species obtained during the winter gales. I first read the records in a cutting from the 'West Australian' newspaper, sent me by a friend, and by last mail have had them confirmed in a letter from Mr. Glauert of the Perth Museum.

IV.—*Remarks on rare and otherwise interesting Birds contained in Collections made by Mr. G. L. Bates in Southern Cameroon.* By DAVID A. BANNERMAN, M.B.E., B.A., M.B.O.U.\*

THE birds here referred to were collected by Mr. G. L. Bates in the southern part of Cameroon, for the most part on the River Ja, but a number were secured on the Rivers Bumba and Nyong (*vide* map, *Ibis*, 1908, pl. xi.).

Two distinct collections are represented: the first was sent to the British Museum before the war in 1911, and on these birds Mr. Bates has already published his interesting notes (*Ibis*, 1911, pp. 479-545 & 581-631).

The second collection was received by us in 1915, and these birds Mr. Bates has now generously presented to the National Collection. The period during which these two collections were made extends over a number of years:—

Collection 1, from 1908-1911.

Collection 2, from 1912-1915.

In the following pages I have dealt only with the non-Passerine Birds. Mr. Ogilvie-Grant has already published some notes on the rarer Passerine birds which Mr. Bates sent

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